



Swiveling Balcony Hoist

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TOOLS:

- [Carpenter's pencil \(1\)](#)
- [Drill \(1\)](#)
- [Hacksaw \(1\)](#)
- [Hole saw set \(1\)](#)
- [Pliers \(1\)](#)
- [Tape measure \(1\)](#)



PARTS:

- [Metal pipe \(1\)](#)
6'-8' long
- [Metal pipe \(2\)](#)
3'-4' long
- [Metal pipe nipple \(1\)](#)
1' long, 1" wide
- [Metal tee \(1\)](#)
- [Flange \(1\)](#)
- [Flange \(1\)](#)
- [Hose clamps \(3\)](#)
- [U-bolt \(1\)](#)
- [Wood scrap \(2\)](#)
1'x1' squares
- [Wood \(1\)](#)
3'-5' long
- [Rope \(1\)](#)
long enough to reach the ground floor

SUMMARY


Apartment-style living has its advantages, but getting a bicycle off the balcony, through your living area, and down several flights of stairs just to go get some exercise isn't one of them.

Carrying groceries up and taking trash down several flights of stairs isn't so much fun either, but you can mitigate these pains by building a swiveling hoist on your balcony.

The whole setup costs right around \$50, and takes only a few hours from start to finish.

Step 1 — Choose the location.



- Measure the distance from the floor to the ceiling of your balcony.
- Make a note that your hoist's inner stem (1" metal pipe) should be at least half the length of its outer stem (1.5" metal pipe). 
- Select a mount point for the stem of the hoist. On many balconies, the area adjacent to the rail fixture is ideal because you're able to clamp to the rail and gain some additional stability.

Step 2 — Measure your space.



- Starting from the stem's mount point, calculate the approximate distance the arm of the hoist will need to swing out from your balcony in order to provide sufficient clearance when you're lifting up an item.
- If you plan to hoist up any bulky items, be sure to account for any possible rotation on the way up.

Step 3 — Prepare the pipes.



- Thread one end of the outer stem and attach the 1½" metal flange. (Home warehouse stores usually cut and thread pipes for free if you purchase them there.) Then thread one end of the hoist's inner stem.
- Connect the inner stem and the metal pipe nipple into the 1" metal tee, so that they're in line with one another.
- Insert the longer segment of the inner stem into the outer stem.
- The resulting apparatus will stand vertically on your balcony. Trim it so that it's approximately ½" less than your balcony's height. Make sure to thread and trim your hoist's outer arm.

Step 4 — Drill the holes.



- Use a drill and hole saw attachment to bore holes approximately $\frac{3}{4}$ " deep into the 2 wood squares. Each hole should accommodate one end of the stem.
- Attach the small wood blocks to the corresponding end of the stem apparatus from Step 3, and stand it up vertically.
- Make small adjustments to the metal pipe with the hacksaw until the full stem fits flush between the floor and ceiling. Ensure that the inner stem swivels comfortably by widening the hole in the upper wooden block as necessary.

Step 5 — Install the hoist.



- Use the strip of wood and the hose clamps to secure the stem flush with the rail fixture. If no rail is available, consider an alternative means of structural support.
- Securely screw the wooden blocks into place.
- Attach the remaining 1" flange to the hoist's arm and tighten the U-bolt approximately 2" from the end. Wrap any visible threads with thin tape to prevent fraying of your rope.

Step 6 — Lift away!



- Drape the rope over the arm, between the U-bolt and the end flange.
- Securely attach the hoist's arm to its stem.
- Swivel out from your balcony, and, making sure no one is below, use the rope to lower down a series of lightweight items before attempting heavier items such as a bicycle.
- You can enhance the arm with a small pulley if you have the leeway.
- Safety first whenever using your hoist. Use common sense and never hoist people or animals. Test your hoist's weight limit carefully and incrementally.



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